

**§ 421.307**

**PSNS FOR THE PRIMARY AND SECONDARY  
TITANIUM SUBCATEGORY**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of titanium cast	
Chromium (total) .....	27.000	10.950
Lead .....	20.430	9.486
Nickel .....	40.140	27.000
Titanium .....	38.680	16.780

**§ 421.307 [Reserved]**

**Subpart AC—Secondary Tungsten  
and Cobalt Subcategory**

SOURCE: 50 FR 38386, Sept. 20, 1985, unless otherwise noted.

**§ 421.310 Applicability: Description of  
the secondary tungsten and cobalt  
subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of tungsten or cobalt at secondary tungsten and cobalt facilities processing tungsten or tungsten carbide scrap raw materials.

**§ 421.311 Specialized definitions.**

For the purpose of this subpart the general definitions, abbreviations, and methods of analysis set forth in 40 CFR part 401 shall apply to this subpart.

**§ 421.312 Effluent limitations guide-  
lines representing the degree of ef-  
fluent reduction attainable by the  
application of the best practicable  
control technology currently avail-  
able.**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best practicable technology currently available:

(a) Tungsten detergent wash and rinse.

**40 CFR Ch. I (7–1–00 Edition)**

**BPT LIMITATIONS FOR THE SECONDARY  
TUNGSTEN AND COBALT SUBCATEGORY**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten scrap washed	
Copper .....	0.371	0.195
Nickel .....	0.374	0.248
Ammonia (as N) .....	25.990	11.430
Cobalt .....	0.768	0.337
Tungsten .....	1.357	0.542
Oil and grease .....	3.900	2.340
Total suspended solids .....	7.995	3.803
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(b) Tungsten leaching acid.

**BPT LIMITATIONS FOR THE SECONDARY  
TUNGSTEN AND COBALT SUBCATEGORY**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten pro- duced	
Copper .....	4.885	2.571
Nickel .....	4.937	3.265
Ammonia (as N) .....	342.700	150.700
Cobalt .....	10.130	4.448
Tungsten .....	17.890	7.147
Oil and grease .....	51.420	30.850
Total suspended solids .....	105.400	50.140
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(c) Tungsten post-leaching wash and rinse.

**BPT LIMITATIONS FOR THE SECONDARY  
TUNGSTEN AND COBALT SUBCATEGORY**

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten pro- duced	
Copper .....	9.772	5.143
Nickel .....	9.875	6.532
Ammonia (as N) .....	685.600	301.400
Cobalt .....	20.263	8.897
Tungsten .....	35.800	14.300
Oil and grease .....	102.900	61.720
Total suspended solids .....	210.900	100.300
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(d) Synthetic scheelite filtrate.

## Environmental Protection Agency

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### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of synthetic scheelite produced	
Copper .....	31.660	16.660
Nickel .....	31.990	21.160
Ammonia (as N) .....	2,221.000	976.300
Cobalt .....	65.644	28.824
Tungsten .....	116.000	46.320
Oil and grease .....	333.200	200.000
Total suspended solids .....	683.100	324.900
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(e) Tungsten carbide leaching wet air  
pollution control.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten car- bide scrap leached	
Copper .....	3.327	1.751
Nickel .....	3.362	2.224
Ammonia (as N) .....	233.400	102.600
Cobalt .....	6.899	3.029
Tungsten .....	12.190	4.868
Oil and grease .....	35.020	21.010
Total suspended solids .....	71.790	34.150
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(f) Tungsten carbide wash water.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten car- bide produced	
Copper .....	15.830	8.333
Nickel .....	16.000	10.580
Ammonia (as N) .....	1,111.000	488.300
Cobalt .....	32.832	14.416
Tungsten .....	58.000	23.170
Oil and grease .....	166.700	100.000
Total suspended solids .....	341.700	162.500
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(g) Cobalt sludge leaching wet air  
pollution control.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt pro- duced from cobalt sludge	
Copper .....	67.990	35.780
Nickel .....	68.700	45.440
Ammonia (as N) .....	4,770.000	2,097.000
Cobalt .....	140.977	61.901
Tungsten .....	249.000	99.470
Oil and grease .....	715.600	429.400
Total suspended solids .....	1,467.000	697.700
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(h) Crystallization decant.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt produced	
Copper .....	79.140	41.650
Nickel .....	79.970	52.900
Ammonia (as N) .....	5,552.000	2,441.000
Cobalt .....	164.101	72.055
Tungsten .....	289.900	115.800
Oil and grease .....	833.000	499.800
Total suspended solids .....	1,708.000	812.200
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(i) Acid wash decant.

### BPT LIMITATIONS FOR THE SECONDARY TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt produced	
Copper .....	36.220	19.060
Nickel .....	36.600	24.210
Ammonia (as N) .....	2,541.000	1,117.000
Cobalt .....	75.104	32.977
Tungsten .....	132.700	52.990
Oil and grease .....	381.300	228.800
Total suspended solids .....	781.600	371.700
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(j) Cobalt hydroxide filtrate.

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BPT LIMITATIONS FOR THE SECONDARY  
TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt produced	
Copper .....	107.600	56.650
Nickel .....	108.800	71.940
Ammonia (as N) .....	7,551.000	3,320.000
Cobalt .....	223.189	97.999
Tungsten .....	394.300	157.500
Oil and grease .....	1,133.000	679.800
Total suspended solids .....	2,323.000	1,105.000
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

(k) Cobalt hydroxide filter cake wash.

BPT LIMITATIONS FOR THE SECONDARY  
TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of cobalt produced	
Copper .....	207.200	109.100
Nickel .....	209.400	138.500
Ammonia (as N) .....	14,530.000	6,389.000
Cobalt .....	429.598	188.631
Tungsten .....	758.900	303.100
Oil and grease .....	2,181.000	1,309.000
Total suspended solids .....	4,471.000	2,126.000
pH .....	( <sup>1</sup> )	( <sup>1</sup> )

<sup>1</sup> Within the range of 7.5 to 10.0 at all times.

[50 FR 38386, Sept. 20, 1985, as amended at 55 FR 31713, 31714, Aug. 3, 1990]

**§ 421.313 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

Except as provided in 40 CFR 125.30 through 125.32, any existing point source subject to this subpart shall achieve the following effluent limitations representing the degree of effluent reduction attainable by the application of the best available technology economically achievable:

(a) Tungsten detergent wash and rinse.

40 CFR Ch. I (7–1–00 Edition)

BAT LIMITATIONS FOR THE SECONDARY  
TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten scrap washed	
Copper .....	0.250	0.119
Nickel .....	0.107	0.072
Ammonia (as N) .....	25.990	11.430
Cobalt .....	0.538	0.236
Tungsten .....	0.679	0.302

(b) Tungsten leaching acid.

BAT LIMITATIONS FOR THE SECONDARY  
TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten pro- duced	
Copper .....	3.291	1.569
Nickel .....	1.414	0.951
Ammonia (as N) .....	342.700	150.700
Cobalt .....	7.096	3.111
Tungsten .....	8.947	3.985

(c) Tungsten post-leaching wash and rinse.

BAT LIMITATIONS FOR THE SECONDARY  
TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of tungsten pro- duced	
Copper .....	6.583	3.137
Nickel .....	2.829	1.903
Ammonia (as N) .....	685.600	301.400
Cobalt .....	14.194	6.223
Tungsten .....	17.900	7.972

(d) Synthetic scheelite filtrate.

BAT LIMITATIONS FOR THE SECONDARY  
TUNGSTEN AND COBALT SUBCATEGORY

Pollutant or pollutant property	Maximum for any 1 day	Maximum for monthly average
	mg/kg (pounds per million pounds) of synthetic scheelite produced	
Copper .....	21.330	10.170